

IGOREV, I.

The "AN-24". IUn.tekh. 7 no.2:10-11 F '63.  
(Airplanes)

(MIHA 16:4)

ACC NR: AM5027749

Monograph

UR/

Armand, N. A.; Vvedenskiy, B. A.; Gulyatinskiy, I. A.; Igoshev, I. P.;  
Kazakov, L. YA.; Kalinin, A. I.; Nazarova, L. G.; Nemirovskiy, A.  
S.; Prosin, A. V.; Ryskin, E. YA.; Sokolov, A. V.; Tarasov, V. A.;  
Tashkov, P. S.; Tikhomirov, YU. A.; Troitskiy, V. N.; Fedorova, L. V.;  
Chernyy, P. B.; Shabel'nikov, A. V.; Shirey, R. A.; Shifrin, YA. S.;  
Shur, A. A.; YAKovlev, O. I.; Kolosov, M. A.; Levshin, I. P.; Lomakin, A. M.

Upper tropospheric propagation of ultrashort radio waves (Dal'noye  
troposfernoye rasprostraneniye ul'trakorotkikh radiovoln) Moscow,  
Izd-vo "Sovetskoye radio", 1965. 414 p. illus., biblio. 4000  
copies printed.

TOPIC TAGS: radio wave propagation, tropospheric radio wave, radio  
communication, space communication, tropospheric scatter communicat-  
ion, signal processing, signal distortion, field theory

PURPOSE AND COVERAGE: This monograph is intended for specialists  
working in the field of radiowave propagation, designers of long-  
distance radio communication systems, and teachers and students of  
the advanced courses in schools of higher technical education. The  
monograph contains, for the most part, heretofore unpublished  
results of Soviet experimental and theoretical investigations in the  
field of long-distance tropospheric ultrashortwave propagation.

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Problems of investigating the troposphere by means of refractometers, the mean level of signals, meteorological conditions and topography, fluctuation of arrival angles and distortions of antenna-directivity patterns, losses in antenna gain, and quick and slow fadings of signal levels are discussed. The statistical characteristics of the signals at diversity reception in time, space, frequency and angle as well as the distortion of signals in the communication systems are also investigated. The long-distance propagation theory is analyzed, and the engineering method of calculating field intensity at long-distance tropospheric propagation is given. At present, there is no theory of Long-Distance Tropospheric Propagation which can be applied effectively enough in practice. Thus, in the investigation of that propagation, considerable attention has to be paid to experiments. The special characteristics of geographical conditions of the territory involved should be taken into consideration during the analysis of experimental data and in their practical application because the conditions of propagation in arctic and tropical climates differ from those existing over seas and continents. A considerable part of the monograph deals with the investigations of long-distance tropospheric propagation carried out over dry land routes, 800 km long, in the central part of the USSR under the general supervision of B. A. Vvedenskiy and A. G. Arenberg (up to 1957). V. I. Siforov investigated problems con-

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nected with distortions and fluctuations of signals. References follow each chapter.

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SUB CODE: 17/ SUBM DATE: 24Jun65/ ORIG REF: 071/ OTH REF: 0103/

Card 10/10

MOROZ, Ye., kand.fiziko-matematicheskikh nauk; IGOREV, M., inzh.

Self-servicing of particles. Znan.,-sila 37 no.12:20-21 D '62.  
(MIRA 16:2)

(Particle accelerators) (Cybernetics)

1. IGORSHIN, M.
2. USSR (600)
4. Radio Operators
7. They will be radio operators, Radio No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

IGORTSEV, S. D.

SOROCHINSKIY, A.F., kandidat meditsinskikh nauk (Stavropol'); KVITASH, V.A.  
(Stavropol'); IGORTSEV, S.D. (Stavropol').

Discontinuous sleep and local therapy of certain skin diseases.

Vest. ven. i derm. no.3:51 My-Je '54.

(SKIN--DISEASES)

(SLEEP--THERAPEUTIC USE)

IGORYANOV, Aleksey Petrovich; NIKIFOROV, S.V., retsenzent; MILLER, E.E., dotsent, red.; GEL'MAN, D.Ya., red.; TIKHANOV, A.Ya., tekhn.red.

[Time standards for boiler work; based on experience obtained at plants] Normativy vremeni na kotel'nye raboty; iz opyta zavodov. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1960. 275 p. (MIRA 13:6)

(Boilers)

IGOSHEV, I.

Honored obligation. Voen.znan. 36 no.12:2-3 D'60. (MIRA 13:11)  
(Russia--Armed forces)



22727

S/108/61/016/005/001/005  
B104/B205

9.9/00

AUTHORS: Prosin, A. V., Igoshev, I. P., Levshin, I. P.

TITLE: Automation of the statistical evaluation of radio signals  
by electronic computers

PERIODICAL: Radiotekhnika, v. 16, no. 5, 1961, 64 - 70

TEXT: A description is given of a method for the statistical evaluation of experimental data by digital electronic computers. This method was developed for computers of the types M-2 (M-2) and ~~5X~~M-2 (BESM-2) of the Institut elektronnykh upravlyayemykh mashin AN SSSR (Institute of Electronic Control Machines, AS USSR) by the Institut radiotekhniki i elektroniki AN SSSR (Institute of Radio Engineering and Electronics, AS USSR) in a laboratory under the supervision of V. I. Siforov, Corresponding Member AS USSR, and the apparatus required was also built. The proper conversion of experimental data to be processed by electronic computers is discussed first. Fig. 1 shows the code of the M-2 machine; a signal and its conversion into a digital code are illustrated in Fig. 2. For the purpose of feeding data given in the code of the M-2 machine into

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Automation of the statistical...

the BESM-2 machine, it was necessary to build a special unit for the conversion of codes. The continuous signal in the unit used for discrete recording of such signals was converted into discrete values according to its level, which, in turn, were used to perforate a teleprinter paper tape. The use of a memory allowed the tape to record two different signals with the help of this unit. The unit performs recordings at two speeds, and records signals in the binary number system. The block diagram of the unit is shown in Fig. 3. The unit was used to analyze the statistical characteristics of various radio signals. The authors obtained one- and two-dimensional probability distributions of instantaneous signal values, as well as correlation functions, cross-correlation coefficients, mean fading rates, etc. A universal program worked out for calculating the statistical characteristics of signals, enabled the authors to determine all the characteristics named above within one cycle of calculations. The use of the above-described unit, which converts radio signals in such a way that they can be fed into computers, renders the system described especially useful for investigating the statistical characteristics of radio signals in troposphere and ionosphere research. There are 4 figures and 2 Soviet-bloc references.

Card 2/4

ARMAND, N.A.; VVEDENSKIY, B.A.; GUSYATINSKIY, I.A.; IGOSHEV, I.P.;  
KAZAKOV, L.Ya.; KALININ, A.I.; KOLOSOV, M.A.; LEVSHIN, I.P.;  
LOMAKIN, A.N.; NAZAROVA, L.G.; NEMIROVSKIY, A.S.; PROSIN,  
A.V.; RYSKIN, E.Ya.; SOKOLOV, A.V.; TARASOV, V.A.; TRASHKOV,  
P.S.; TIKHOMIROV, Yu.A.; TROITSKIY, V.N.; FEDOROVA, L.V.;  
CHERNYY, F.B.; SHAHEL'NIKOV, A.V.; SHIREY, R.A.; SHIFRIN, Ya.S.;  
SHUR, A.A.; YAKOVLEV, O.I.; ARENBERG, N.Ya., red.

[Long-distance tropospheric propagation of ultrashort radio  
waves] Dal'nee troposfernoe rasprostranenie ul'trakorotkikh  
radiovoln. Moskva, Sovetskoe radio, 1965. 414 p.  
(MIRA 18:9)

KULEZNEV, V.N.; IGOSHEVA, K.M.

Densities of polymer mixtures. Vysokom. soed. 4  
no.12:1858-1862 D '62. (MIRA 15:12)

1. Ural'skiy gosudarstvennyy universitet imeni A.M. Gor'kogo.  
(Polymers)  
(Films (Chemistry)---Density)

S/069/62/024/003/004/006  
B110/B138

AUTHORS: Kuleznev, V. N., Igosheva, K. M.

TITLE: Effect of various substances on the stability of mixed polymer solutions

PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 3, 1962, 306 - 308

TEXT: An attempt was made to decelerate the separation of polymer mixtures by adding small amounts of polar substances. Solutions of the following technical, nonfractionated polymers were studied: block polystyrene and emulsion polymethyl methacrylate in cryoscopic benzene (polymer ratio-1:1), the mixtures of which separate at 9%. The following additives were used: Propyl, amyl, and ethyl alcohols, acetone, acetophenone, benzophenone, methyl-ethyl ketone, butyric, isobutyric and oleic acids, butyl acetate, benzyl acetate, methyl, ethyl, butyl, and isoamyl benzoates, aniline, dimethyl aniline, dichloro ethane, chlorobenzene, ethylene chlorohydrin, pyridine, and thiophen. Aniline, and ethylene chlorohydrin increased the optical density and accelerated the separation. In 10% solutions of mixtures (polystyrene : polymethyl methacrylate - 1:1) with 100 mole% substance per Card 1/2

KIKOIN, I.K.; BABUSHKINA, N.A.; IGOSHEVA, T.N.

Galvanomagnetic phenomena in the MnSb ferromagnetic alloy. *Fiz.*  
met. 1 metalloved. 10 no.3:488-490 S '60. (MIRA 13:10)  
(Manganese-antimony alloys) (Hall effect)

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S/126/60/010/003/007/009/XX  
E032/E314

**AUTHORS:** Kikoin, I.K., Babushkina, N.A. and Igosheva, T.N.  
**TITLE:** Galvanomagnetic Phenomena in the Ferromagnetic Alloy MnSb  
**PERIODICAL:** Fizika metallov i metallovedeniy, 1960, Vol. 10, No. 3, pp. 488 - 490

**TEXT:** It is said that no satisfactory theory of galvanomagnetic effects in ferromagnetics is available at the present time. This is largely due to the lack of experimental data in this important field. The present authors have investigated the temperature dependence of the Hall coefficient and the electrical resistivity of MnSb alloys (50 at.%). The same specimens were used to measure the temperature dependence of the magnetisation curves and the magnetocaloric effect. Fig. 1 shows the ferromagnetic Hall coefficient  $R_H$  as a function of the square of the spontaneous magnetisation (the units of  $R_H$  are  $V \cdot g / amp \cdot gauss \cdot cm^2$  and the units of

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Galvanomagnetic Phenomena in the Ferromagnetic Alloy MnSb

$\sigma_s^2$  are gauss<sup>2</sup>cm<sup>6</sup>/g<sup>2</sup>). If  $R_J$  is represented by a formula of the form

$$R_J = a(\sigma_0^2 - \sigma_s^2) \quad (2)$$

then it is found that  $\sigma_0 = 111.76$  gauss/cm<sup>3</sup>/g. It is known (Kikoin et al, Ref. 1) that a similar formula holds for chromium-tellurium alloys. Eq. (2) can also be derived from the theory of galvanomagnetic effects in ferromagnetics as given by Vonsovskiy et al (Ref. 2) and Patrakhin (Ref. 3). The equation can be used to establish a relation between the ferromagnetic Hall coefficient and the electrical resistivity  $\rho$ . This relation differs from the Karplus--Luttinger (Ref. 4) relation

$$R_J = A \rho^2 \quad (3)$$

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Galvanomagnetic Phenomena in the Ferromagnetic Alloy MnSb

which does not agree with experiment. The present authors use the relation

$$R_j = \alpha - \beta \Delta \rho \quad (5)$$

where  $\Delta \rho$  is the ferromagnetic part of the resistivity. An experimental plot of  $R_j$  versus  $\Delta \rho$  is shown in Fig. 2. Agreement with Eq. (5) is seen to be satisfactory. A more detailed description of experiments and results will be published later. There are 2 figures and 5 references: 3 Soviet and 2 non-Soviet.

SUBMITTED: June 17, 1960

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S/126/60/010/003/007/009/XX  
E032/E314

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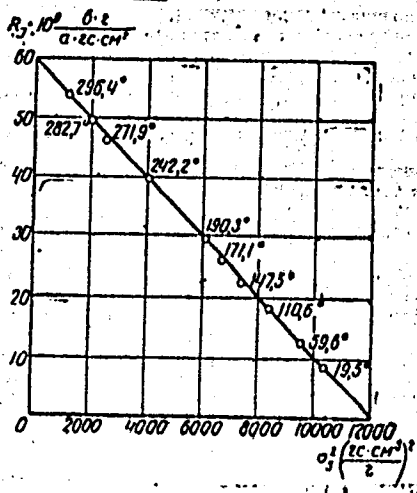
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Galvanomagnetic Phenomena in the Ferromagnetic Alloy MnSb

Fig. 1



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Fig. 2

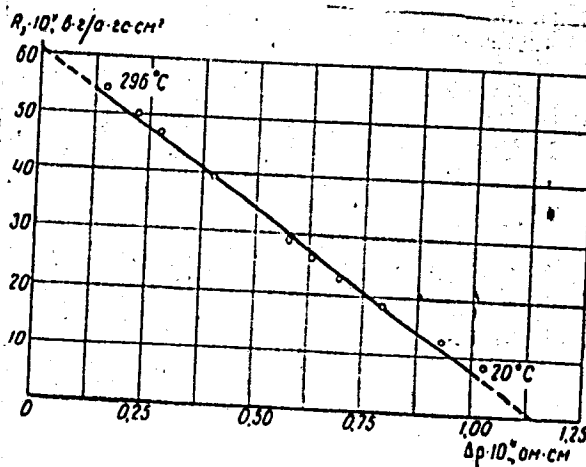


Рис. 2.

84430

S/056/60/039/004/048/048  
B006/B056

24.7900 (1035, 1144, 1160)

AUTHORS: Kikoin, I. K., Babushkina, N. A., Igosheva, T. N.

TITLE: The Magnetic Change in Resistance of Ferromagnetics Above the Curie Point

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 4(10), pp. 1172 - 1174

TEXT: The authors aimed at finding out what connection exists between the change in the electric resistance in a magnetic field and the paramagnetic susceptibility of ferromagnetics above the Curie point. For the Hall effect in ferromagnetics, this relation has already been found in earlier papers (Refs.1,2). As an object of investigation, the authors chose a chromium-tellurium alloy with a low Curie point ( $\theta \approx 50^\circ\text{C}$ ), in which the paramagnetic susceptibility obeys the Curie-Weiss law  $\chi = c/(T - \theta_p)$

( $\theta_p = 86^\circ\text{C}$ ). Fig. 1 shows  $\Delta r/r = f(T)$  of this sample;  $r$  is the resistance of the sample without field,  $\Delta r$  - the change in resistance caused by the field. The magnetic change of resistance is negative throughout the

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The Magnetic Change in Resistance of Ferro-  
magnetics Above the Curie Point

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B006/B056

temperature range in question. Fig. 2 shows  $\Delta r/r = f(\chi^2)$  for various temperatures between  $434^\circ$  and  $652^\circ\text{K}$ . This function is linear in the temperature range investigated. At a given temperature,  $\Delta r/r$  changes quadratically with the field;  $-\Delta r/r = a(\chi H)^2 = a\sigma^2$ . Measurements carried out below the Curie point in the transverse field gave the relation  $-\Delta r/r = b(\sigma^2 - \sigma_s^2)$ , where  $\sigma$  is the resulting magnetization,  $\sigma_s$  - spontaneous magnetization, and  $b$  - a constant which is practically independent of temperature. If one considers that above the Curie point  $\sigma_s = 0$ , it results that the relation between the magnetic change in resistance and the magnetization in the ferromagnetic and paramagnetic states of the sample remains unchanged; the constants  $a$  and  $b$  coincide with an accuracy of 20%. There are 2 figures and 3 references: 2 Soviet and 1 German.

SUBMITTED: August 20, 1960

Card 2/2

ACCESSION NR: AP4012524

S/0056/64/046/001/0067/0070

AUTHORS: Kikoin, I. K.; Igosheva, T. N.

TITLE: Hall coefficient and electrical resistance of ferromagnets

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 67-70

TOPIC TAGS: ferromagnet, Hall coefficient, electrical resistance, magnetic component of resistance, ferromagnetic Hall coefficient, odd galvanomagnetic effect, even galvanomagnetic effect, Curie point, magnetoresistance, Hall effect

ABSTRACT: Since the formula  $R_F = A\rho^2$  which Karplus and Luttinger (Phys. Rev. v. 95, 1154, 1954) proposed for the connection between the ferromagnetic Hall coefficient and the electric resistance  $\rho$  of a substance was never confirmed experimentally, the authors show that it is physically more justified to relate  $R_F$  with the "magnetic"

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ACCESSION NR: AP4012524

part  $\rho_M$  of the resistance, brought about by spontaneous magnetization, and show by analysis of the experimental data that the formula  $R_F - R_{F0} = a\rho_M^2$ , where  $R_{F0}$  is the value of  $R_F$  at  $0^\circ K$ , holds true for temperatures both above and below the Curie point (with possible exception of very low temperatures). The variation of the resistance of several alloys in a magnetic field (in the paramagnetic region) is also shown to be proportional to the magnetic resistance. It is therefore concluded that the magnetic resistance  $\rho_M$  is the quantity with which both the odd and even valvanomagnetic effects should be compared. Orig. art. has: 3 figures and 7 formulas.

ASSOCIATION: None

SUBMITTED: 10Jul63

SUB CODE: PH

DATE ACQ: 26Feb64

NO REF SOV: 003

ENCL: 01

OTHER: 006

Card 2/12

ACCESSION NR: AP4037618

S/0056/64/046/005/1923/1925

AUTHOR: Kikoin, I. K.; Igoshva, T. N.

TITLE: Magnetic variation of the resistance of ferromagnets

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1923-1925

TOPIC TAGS: ferromagnet, ferromagnet resistance, ferromagnetic Hall coefficient, anomalous Hall coefficient, spontaneous magnetization, galvanomagnetic effect, resistance in magnetic field, para process, Curie point

ABSTRACT: In analogy with the simple connection they previously obtained (ZhETF v. 46, 67, 1964) between the ferromagnetic Hall effect and the magnetic resistance, the authors establish a relation for the change in the resistance of a ferromagnet in an external magnetic field. The consideration is limited to fields and temperatures at which the para-process takes place. The relation established is in the form

$$-\Delta\rho/\rho_M = A(J^2 - J_0^2)/(J_0^2 - J_1^2).$$

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(J- magnetization,  $J_s$  and  $J_{s0}$  --spontaneous magnetization, at given and zero temperatures) and comparison with the experimental data shows it to be the same for all the substances tested. The fact that the coefficient A in the equation is equal to  $0.5 \pm 0.1$  rather than unity is difficult to explain. An experimental determination of A itself entails considerable difficulty in view of its sensitivity to small errors in  $J_s$  and J far from the Curie point. Orig. art. has: 5 formulas and 1 figure.

ASSOCIATION: None

SUBMITTED: 09Mar64

ENCL: 02

SUB CODE: EC, EM

NR REF SOV: 004

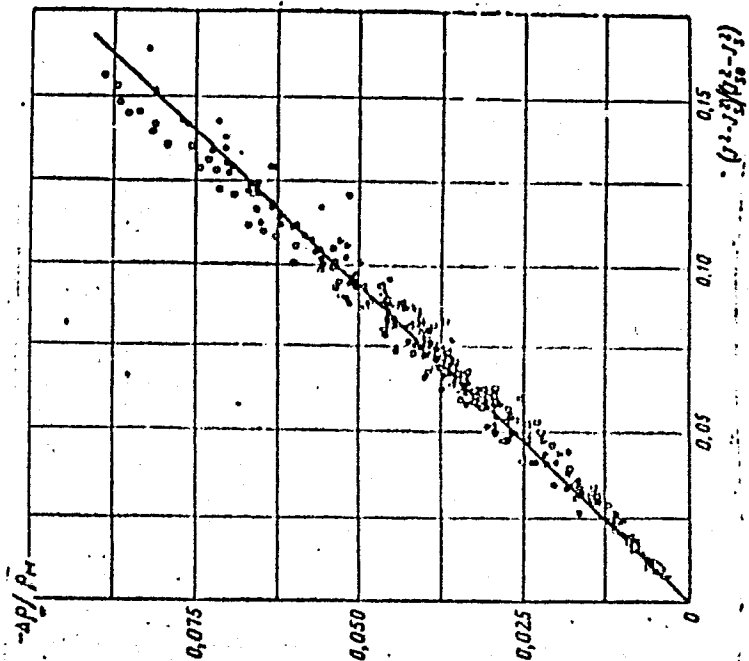
OTHER: 002

Card 2/4



ACCESSION NR: AP1037618

ENCLOSURE: 01



Card 3/4

ACCESSION NR: AP4037618

ENCLOSURE: 02

Dependence of  $\Delta\rho/\rho_M$   
(relative magnetic resistance change) on  $(J^2 - J_0^2)/(J_{90}^2 - J_0^2)$

for ferromagnetic alloys  
of nickel with the following  
copper concentration  
(in atomic per cent):

□ - 23.4, △ - 28, ○ - 31.6,  
● - 36.8, ◊ - 42.4

and the following samples:

▲ - MnSb, ■ - CrTe, × - Fe.

Card 4/4

IGOSHIN, A.

Rabbits

Local downy rabbit. Kolkh. proizv. 12 no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

IGOSHIN, A. A.

Underground surveying in mine construction; textbook for schools of mining engineering.  
Moskva, Ugletekhizdat, 1951. 286 p. (55-18559)

TN273.I35

INCHIN, A. I.

35405 Uley Trekhnernogo Tipa. Pchelovodstvo, 1949, No. 11, S. 21-23

S0: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva, 1949

GURKINA, T.V.; IGOSHIN, A.M.

Photometric determination of microgram amounts of copper, zinc,  
and lead in natural waters using xylenol orange. Zhur. anal.  
khim. 20 no.7:776-781 '65. (MIRA 18:9)

1. Central Laboratory of the South-Kazakhstan Geological  
Department, Alma-Ata.

L 05275-67 EWT(a)/FWP(1) IJP(c) BB/GG  
ACC NR: AR6023096

SOURCE CODE: UR/0372/66/000/003/G042/G042

AUTHOR: Getmanov, A. G.; Igoshin, A. P.

TITLE: On the frequency analysis of the structures of linear functionals realizable by a digital computer in an analog-digital simulation system

SOURCE: Ref. zh. Kibernetika, Abs. 3G311 16C

REF SOURCE: Sb. Analog. i analogo-tsifrovaya vychisl. tekhn. M., Mashinostroyeniye, 1965, 217-226

TOPIC TAGS: computer simulation, computer program, linear functional operator, mathematic analysis

ABSTRACT: The realization of a linear functional with a constant coefficient by means of a digital computer is discussed. The computer program is compiled in accordance with the equivalent system of difference levels. Two chief problems are formulated: selection of the method of numerical solution and selection of the step of solution assuring the desired accuracy. Bibliography of 2 titles. E. G. [Translation of abstract]

SUB CODE: 12, 09/

Card

UDC: 62-506:681.142:62

1.2300

27817

S/549/61/000/101/015/015  
D256/D304

AUTHORS: L'vov, N.S., and Igoshin, A.P., Engineers

TITLE: Welding apparatus for automatic electric-arc welding  
of curvilinear butt joints

PERIODICAL: Vyssheye tekhnicheskoye uchilishche. Trudy. Svarka  
tsvetnykh splavov, redkikh metallov i plastmass,  
no. 101, 1961, 241 - 252

TEXT: After a long preliminary discussion of the need for such an apparatus, alternative methods of automatic control desirable features, earlier developments etc., the apparatus in question is described. Its working principles are shown in Fig. 1. The photoelement 5 monitors the position of the light spot from the source 4 relative to the edge of the line. If the latter departs from the spot an out-of-balance signal is fed from the photoelement into an amplifier 10. The regulating reaction forces the motor 6 to turn one way or the other the lead screw 8, and thus to move the photoelectric head and with it the welding gun nozzle 9 in the direc-

Card 1/6



Welding apparatus for automatic ...

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D256/D304

tion, in which the edge of the copying line has departed until the spot becomes accurately positioned over the edge. Since the nozzle is rigidly connected with the photoelectric cell, and the distance between them is the same as that between the probe and the pen in the tracer, then, consequently, as the machine moves, the photoelectric device follows the edge of the copying line, and the welding electrode moves along the axis of the joint. A relay following system is used in preference to one of continual motion due to simplicity of construction and certain other advantages. The speed of response is always a maximum and independent of the degree of unbalance, oscillations in the system can be suppressed, with certain supplementary internal connections results unattainable with other systems can be obtained. The electrical scheme of the system is then shown and explained. The function of the photoelement is to determine the position of the 1 mm diameter light spot relative to the boundary of the line, drawn e.g. in black on a white background, and constituting the program of the system. Of the various types of photoelectric device available an  $\Phi A-1$  (FD-1) "photodiode" is used since its small active element and internal lens simp-

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Welding apparatus for automatic ...

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ifies the optical system requirements. Its sensitivity at 30 mA/m is 200-1000 times greater than that of external photoelectric devices. The "dark current" of the photodiode does not exceed 10-30 micro-A; on illumination the photodiode current is proportioned to the incident light and practically independent of the applied voltage. The spectral characteristic of the photodiode possesses a maximum slightly to the longer-wave side of the maximum in the welding arc radiation, and covers a range of roughly 1.4 - 1.5 micron. Photodiodes have the important disadvantage of being sensitive to atmospheric temperature variations and possessing considerable scattering, however, this is true of all types of photoelements. The voltage in the photodiode circuit is about 30 V and the load resistance 0.6 M-ohm. The amplifier is of a composite type; electronic relay, and electromagnetic. The amplifier first and second cascades operate at fixed signal frequency of 64 c.p.s. - the frequency of the light beam. Negative feedback is in the form of a narrow-band filter, on the voltage-amplifying triode in the second cascade. Thyatron and electric-machine amplifiers are also available for power amplification. In an industrial apparatus, preference

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would be given to an electric-machine amplifier, obtaining power directly from the ac mains. The electric motor controlled by the amplifier is of the type CJM-361 (SL-361), and operated on dc. with independent excitation, with the following parameters: voltage 110 ac. armature current 0.75 A, excitation current 0.1 A, power consumed 93.5 watt, useful power 50 watt, speed 3000 r.p.m. The introduction of forced oscillations into the system by applying 50 c.p.s. ac. to one coil of the polarized relay eliminates natural oscillations of the restoring system. Compensating this defect leads to increased sluggishness of correction response, but this can be remedied by increasing the amplification factor. A tachogenerator is also used to provide a correcting negative feedback. The apparatus gives promising results in welding tests. At welding speeds up to 35 m/hr. and angles of deviation up to 10-15° the amplitude of welding head transverse vibrations and deviations from the joint axis can be practically reduced to zero. At speeds up to 70 m/hr. and angular deviations up to 30 these errors can be limited to the order of 0.2-0.3 mm. The apparatus can also be used for cutting and overlaying contours of large expanse. Other types of sensing ele-

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ment can also be used (inductive, inductance, capacitance, ionization etc.). When the bends were only slight the element can be firmly installed directly on the welding head at 50-70 mm from the electrode. There are 6 figures and 6 Soviet-bloc references.

Card 5/6

ACCESSION NR: AP3002507

S/0135/63/000/006/0034/0036

AUTHORS: L'vov, N. S. (Engineer); Igoshin, A. P. (Engineer)

TITLE: Guiding system ASID-3m for welding of thin nonmagnetic materials

SOURCE: Svarochnoye proizvodstvo, no. 6, 1963, 34-36

TOPIC TAGS: nonmagnetic material, welding, thin sheet, guiding system, ASID-3m device, automatic guider, magnetic control

ABSTRACT: The most accurate direction of a welding electrode along the connection was achieved by an indirect guiding method. The ASID-3m device was designed by MVTU for this purpose. Its working principle is based on magnetic control which depends on transmitter inductance variation related to the type of current and frequency, magnetic permeability and specific resistivity of the metals welded, and thickness of metal sheets. Other factors are related to the transmitter position with respect to welding connections and the types of connection. The investigation results showed that accurate automatic welding machines with welding speeds of 80-100 m/hr can be constructed. The error in the position of the ASID-

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3m electrode with respect to the butt axis did not exceed 0.2-0.3 mm. This device proved to be very reliable, well balanced, and easily adjustable to different welding conditions. Further increase in the accuracy of this automatic guider would require the design of more complicated correcting devices. Orig. art. has: 4 figures and 4 formulas.

ASSOCIATION: MVTU im. Bauman (MVTU)

SUBMITTED: 00

DATE ACQ: 12Jul63.

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

ACCESSION NR: AP4038596

S/0193/64/000/005/0029/0030

AUTHOR: Igoshin, A. P.

TITLE: Automatic welding machine ASID-3M-MVTU

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 5, 1964, 29-30

TOPIC TAGS: welding machine ASID 3M MVTU, arc welding, curved joint, stainless steel, titanium, aluminum alloy., triode P4V

ABSTRACT: An automatic welding machine has been developed at Moskovskoye vyssheye tekhnicheskoye uchilishche im. Bauman (Moscow Higher Technical School). It is designed for arc welding curvilinear joints and containers of thin stainless steel, titanium, and aluminum alloys. The electromagnetic positioner operates at the frequency of about 300 ko, works on magnetic and nonmagnetic sheet metal from 0.8 to more than 5 mm thick, welds joints with clearances 0.05-0.2 mm or with no clearance, is simple in construction, easy to adjust, and operates at curvatures up to 20-40 mm/m at a speed of 60 m/hour. The welding process is regulated by changing the length of the arc, and the motor is operated through semiconductor triodes of the type P4V. Voltage regulation accuracy in the range 16-40 v is 0.05-0.2 v. Any

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ACCESSION NR: AP4038596

type of amplifier may be used, and the welding head may be driven by a DC motor.  
In size, the whole machine is 330 x 335 x 235 mm and weighs approximately 25 kg.  
Orig. art. has: 1 photograph.

ASSOCIATION: Moskovskoye vyssheye tekhnicheskoye uchilishe im. Baumana (Moscow  
Higher Technical School)

SUBMITTED: 00

DATE ACQ: 03Jun64

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card, 2/2



IGOSHIN, B.A.

Geophysical work in pyritic copper deposits in the Uchaly ore  
region. Mat. po geol. i pol. iskop. IUzh. Urala no. 3:63-72  
'62. (MIRA 17:7)

ZHILYAKOV, V.G.; IGOSHIN, D.M.

Automation of the beer distillation section. Gidroliz. 1  
lesokhim. prom. 17 no.6:17-18 '64. (MIRA 17:12)

1. Andishanskiy gidroliznyy zavod.

IGOSHIN, F. F.  
and  
POLYAKOV, N. I.

"The Use of Ultrasound in Instrument Building," pp 22-38, ill, ref

Abst: This review article is related to the problem of the application of ultrasound in industry and, in part, in instrument building for the purpose of flaw detection, the control of parts, the mechanical processing of brittle and very hard materials, soldering, cleaning of parts, etc.

SOURCE: Trudy MATI MVO SSSR (Works of the Moscow Aviation Technological Institute of the Ministry of Higher Education USSR), No 33, Some Problems of Present-day Technology of Instrument Building, Moscow, Oborongiz, 1957

Sum 1854

IGOSHIN, F.F.

PHASE I BOOK EXPLOTTATION

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Moscow. Aviatsonnyy tekhnologicheskii institut

Nekotoryye voprosy sovremennoy tekhnologii priborostroyeniya (Some Problems in the Modern Technology of Instrument Making) Moscow, Oborongiz, 1957. 126 p.  
(Its: Trudy, vyp. 33) 3,700 copies printed.

Ed. (title page): Polyakov, M. I., Professor; Ed. (inside book): Mamuylov, L. K.;  
Ed. of Publishing House: Loseva, G. F.; Tech. Ed.: Rozhin, V. P.;  
Managing Ed. (Oborongiz): Latynin, Ye. V., Engineer.

**PURPOSE:** This book is intended for engineers working in the instrumentation industry and students specializing in this field.

**COVERAGE:** This is a collection of articles dealing with the theoretical and practical problems encountered in the instrument manufacturing industry. It covers the principal scientific research work done in the Department of Technology of Aircraft Instrument Manufacturing dealing with the development of modern processes of instrument manufacture. Special emphasis is placed on problems connected with increasing instrument precision and capacity and on the automation and mechanization of the instrument manufacturing industry. For the abstract of each article see Table of Contents.

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Some Problems in the Modern Technology (Cont.)

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Introduction

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Slomyanskiy, G. A., Candidate of Technical Sciences. Deflection of Elastic  
Members Due to Temperature Changes

5

This article deals with deflection of sensitive elastic members of various instruments and automatic controls caused by changes of temperature. The author states that when instruments are used under conditions where there is considerable temperature fluctuation in the area surrounding sensitive members, these members deflect without any change in the measured value, and as a result introduce error in the instrument reading. In order to determine these errors it is necessary to know the "thermal deflection" of elastic members which depends not only on temperature but also on the force-deflection diagram. According to the author this relationship is different for each individual member of the same design and therefore will have a different "thermal deflection." In this article the author develops a method for determining the "thermal deflection" based on an actual force-deflection diagram plotted for a determined temperature. Derived equations are given and their application to specific problems is illustrated. There are no references.

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Some Problems in the Modern Technology (Cont.)

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Polyakov, N. I., Professor, and Igoshin, F. F. Application of Ultrasonics in Instrument Manufacture

22

The purpose of this article is to acquaint the reader with applications of ultrasonics in instrument manufacture, and to present a general review of this subject. Basic properties of ultrasonic waves, their generation and propagation are discussed. The article contains illustrations and descriptions of various types of ultrasonic flaw detectors and describes their practical application. The authors state that further development in the field of ultrasonics and its industrial application will be along the following lines: 1) study of ultrasonic phenomena 2) search for new fields of application 3) development of new inexpensive and simple methods for producing ultrasonic waves. There are 12 references of which 5 are Soviet, 1 German, 3 English, 2 French and 1 Swiss.

Pryadilov, Yu. M., Candidate of Technical Sciences, Bridge With a Diode for Voltage Stabilizers

39

The author claims, that a.c. voltage stabilizers, having a bridge with a diode are the most economical of power consumption by control systems. By

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means of an experimental and theoretical investigation of a diode, the basic relations for a bridge with that tube are found. These data can be used for computation of a.c. voltage stabilizers. The author reports that technical specifications for an industrial model of this diode were set and that at the present time (1957) one of the electronic equipment plants released a trial series of these tubes. There are 7 references of which 5 are Soviet, 2 English.

Korablev, P. A., Candidate of Technical Sciences. Summation Methods for Error Scatter in Dimensions and Shape

57

This article analyzes accuracy of shape and accuracy of dimensions of machined parts. The author develops a method for adding up inaccuracies of shape and inaccuracies of dimensions and gives useful tables which make it possible to determine the spread of overall error for the given relation  $\delta_s / \delta_d$  (where  $\delta_s$  = inaccuracy in shape, and  $\delta_d$  = inaccuracy in dimensions). There are no references.

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Some Problems in the Modern Technology (Cont.)

398

Nikolayev, Ye. N., Senior Instructor, and Chumakov, V. P., Candidate of Technical Sciences, Docent. Mechanized Winding of Small Rotors

74

In this article the authors discuss the development of new machine tools and techniques for winding small-sized rotors of electric motors widely used in aircraft instrumentation and automatic controls. The authors have developed a preliminary design and technical specifications for the construction of a machine tool for winding small-sized rotors, on the basis of which the Scientific Research Institute of Technology and Production Management in the Aircraft Industry has worked out the details and built a model of this machine. The model has been tested and successfully used in one of the plants of the Ministry of the Aircraft Industry. Schematic diagrams and detailed discussion of this machine tool is presented. The authors state that the new machine tool simplifies and facilitates the time-consuming manual winding operation. There are 3 Soviet references.

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Some Problems in the Modern Technology (Cont.)

398

Grigor'yev, B. V., Candidate of Technical Sciences. Some Problems of Diaphragm Corrugation

84

In this article the author discussed problems connected with pressure and forces developed during the process of forming corrugated diaphragms. No references are given.

Kopanevich, Ye. G., Candidate of Technical Sciences. Automation of Drilling Operations in Instrument Manufacture

97

In this article the author discusses automation of drilling operations and suggests the following two ways in which it may be accomplished: 1) building a universal drilling machine with quick resetting for new drilling specifications and 2) developing and introducing special devices for performing automatic drilling operations on ordinary drilling machines. The two methods suggested are discussed in detail. The article contains schematic diagrams of automatic drilling machines. No references are given.

Card 6/8

Some Problems in the Modern Technology (Cont.)

398

Fofer, A. I., Engineer, and Parfenov, O. D., Engineer. Mechanized Computation of Automatic Lathe Setups

101

The author discusses a newly developed device for checking the accuracy of setting-up automatic lathes. The principle of operation and examples of practical application of this device are presented. There are 4 Soviet references.

Rodionov, Ye. M., Engineer. On the Moment of Resistance to Rotation in Radial Ball Bearings of an Instrument

109

This article deals with the analysis of relationships between the friction moment of ball bearings and the angular displacement of the revolving bearing ring. The author states that this problem has not been thoroughly investigated in the literature. He concludes that the friction moment in the radial ball bearing varies with angular displacement of the revolving ring, and that the radial

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Some Problems in the Modern Technology (Cont.)

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clearance causes its excentric motion. This motion produces an additional moment of resistance to rotation and causes vibrations of bearings at high speeds which cannot be eliminated by balancing, thus introducing errors in the instrument. There is one Soviet reference.

AVAILABLE: Library of Congress

GO/bmd  
18 Aug 1958

Card 8/8

IGOSHIN, G. V.    Engr.

The mechanization of the locksmith's work

Vest Mash p. 56, Sep 51

IGOSHIN, G. V., ENG.

Metal Cutting

Mechanical cutting of curved surfaces. Vest. mash. 32 No. 1, 1952

9. Monthly List of Russian Accessions, Library of Congress, October 195~~2~~, Uncl.

IGOSHIN, G.V.

An attachment for pipe expansion. Vest.mash.36 no.4:76-77 Ap '56.  
(Pipe fitting) (MLRA 9:7)

AID P - 4494

Subject : USSR/Engineering  
Card 1/1 Pub. 128 - 21/29  
Author : Igoshin, G. V.  
Title : Rolling-in tool for pipes.  
Periodical : Vest. mash., #4, p. 76-77, Ap 1956  
Abstract : Compressed air hand tool for rolling-in pipes is described.  
Diagrams.  
Institution : None  
Submitted : No date

*Igoshin G.V.*  
IGOSHIN, G.V., inzh.

Efficiency promoter and millionaire. Isobr.v SSSR 2 no.12:32-34  
D '57. (MIRA 10:12)

(Zaichenko, Petr Aleksandrovich) (Machine tools)



IGOSHIN, G.V.

Achievements of the Kirov Plant workers. Izobr. v SSSR 3 no.2:21  
r '58. (MIRA 11:3)

(Leningrad--Machinery industry)

ATAMANENKO, N.S.; IGOSHIN, G.V.

More on planning efficiency-promotion work. Izobr.i rats.  
no.8:34-35 Ag '58. (MIRA 11:9)  
(Suggestion systems)

IGOSHIN, M.

The courses are directed by a seargent of the reserves. Radio  
no.2:13 F '62. (MIRA 15:1)

(Radiotelegraph) (Radio operators)

IGOSHIN, M.; BURLYAND, V.; GOROKHOVSKIY, A.

Literature on radion engineering for 1964. Radio no.2:62-64. F.'64.  
(MIRA 17:3)

1. Zaveduyushchiy redaktsiyey "Massovoy radiobiblioteki" (for Burlyand).
2. Glavnyy redaktor izdatel'stva "Svyaz'" (for Gorokhovskiy).

IGOSHIN, M.

Soviet aviation in the battle of Stalingrad. Kryl.rod. 3 no.2:  
(MIRA 8:8)  
7-9 P '52.  
(Stalingrad, Battle of, 1942-1943) (World War, 1939-1945--  
Aerial operations)

STORCHIYENKO, Pavel Andreyevich; STASEVICH, Rostislav Andreyevich;  
IGOSHIN, M., red.; ZHURAVLEV, A., tekhn.red.

[Parachute target jumping] Pryshki s parashiotom na tochnost'  
prisenlenia. Moskva, Izd-vo DOSAAF, 1954. 61 p. (MIRA 12:3)  
(Parachuting)

Igoshin, M.G.

IGOSHIN, M.G., redaktor; MUNTIAN, T.P., tekhnicheskii redaktor

[Ship models; manual for model makers in the All-Union Volunteer  
Society for Assistance to the Army, Air Force and Navy] Morskoi Modelizm;  
posobie dlia morskikh modelistov DOSAAF. Moskva, Izd-vo DOSAAF,  
1955. 335 p. (MIRA 9:1)

(Ship models)

KARTASHEV, Rostislav Dmitriyevich; KAZANKOV, A.A., redaktor; IGOSHIN, M.G.,  
redaktor; KARYAKINA, M.S., tekhnicheskij redaktor

[Navy manual] Posobie po voenno-morskomu delu. Moskva, Izd-vo  
DOSAAF, 1955. 237 p. (MIRA 9:2)  
(Navigation) (Warships)



MYAGKOV, Petr Stepanovich; ~~IGOSHIN~~, M.G., redaktor; ANDRIANOV, B.I.,  
tekhnicheskii redaktor

[Signalman] Signal'shchik. Moskva, Izd-vo DOSAAF, 1956. 61 p.  
(MIRA 9:9)

(Russia--Navy--Signaling)

IGOSHIN, M.G.

GLUKHOVTSEV, S.A.; IGOSHIN, M., redaktor; MUNTIAN, T.P., tekhnicheskii  
redaktor

[Seagoing properties of vessels; handbook for educational organiza-  
tions of associations of the All-Union Volunteer Society for  
Assistance to the Army, Air Force, and Navy and for naval modelmakers]  
Morekhodnye kachestva korablia; posobie dlia uchebnykh organizatsii,  
krushkov DOSAAF i morekikh modelistov. Moskva, Izd-vo DOSAAF, 1957.  
28 p. (MLDA 10:10)

(Ships--Models)

IGUSHIN, H.G., redaktor; Tolgel'man, L.G., tekhnicheskii redaktor

[Model of a yacht of the class "M"] Model' iakhty klassa "M".  
Moskva, Izd-vo DOSNAP, 1957. 38 p. (MIRA 10:10)  
(Yachts and yachting--Models)

*IGoshin/MG*

ANDREYEV, Vitaliy Vasil'yevich; KARTASHEV, Bostislav Dimitriyevich; IGOSHIN,  
M.G., redaktor; KARYAKINA, M.S., tekhnicheskij redaktor

[Small boat; construction, handling, use] Shliupka; ustroistvo,  
obrashchenie, ispol'zovanie. Moskva, Izd-vo DOGAAP, 1957. 152 p.  
(Boats and boating) (MIRA 10:11)

IGOSHIN, M.G.

PHASE I BOOK EXPLOITATION 495

Andreyev, Vitaliy Vasil'yevich

Vodolaz --pochetnaya spetsial'nost' (Diver --An Honored Profession)  
Moscow, Izd-vo DOSAAF, 1957. 47 p. 6,500 copies printed.

Ed.: Igoshin, M.G.; Tech. Ed.: Andrianov, B.I.

PURPOSE: The aim of this booklet is to interest young people in the diving profession by describing the challenge presented by this occupation.

COVERAGE: This is a brief, popularized description of the diving profession in the Soviet Union with emphasis placed on equipment and operations. A short history of diving from ancient to modern times is followed by a recital of Russian achievements in the field. The effect of underwater conditions on the human body is discussed and a comparatively detailed description of various types of diving suits and apparatus (illustrated) is given. There is also an account of several episodes from salvage operations. The salvaging in 1945

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Diver -- An Honored Profession

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of the tanker "V. Cousarier" (140 m. long, 17 m. wide) from a depth of 43 m., and that of an English submarine torpedoed by the Soviets and downed in the Arctic Ocean are two examples. The author describes some peacetime activities of divers, including underwater mine detonation, pipeline and electric and telephone cable laying, underwater construction and debris clearance, and the maintenance in winter of the ice highway across Lake Ladoga which connects Leningrad with the rest of the country. The following scientists and engineers have contributed to advancements in this field: K.K. Khrenov (underwater electric welding and metal cutting), Ye. P. Tveritinov, Lt. Kolkas'yev, Shidlovskiy, A.A. Krylov, Academician Yu.A. Shimanskiy, D.P. Skobov, Dr. of Tech. Sc., and K.F. Kosourov. The author concludes that the developments in automation and telemechanics point to the creation of a "mechanical diver" in the near future. There are no references.

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Diver -- An Honored Profession

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For the glory of our beloved country	38
Peacetime work	43
A look into the future	45

AVAILABLE: Library of Congress (VM983.A5)

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7-31-58

3/3

*IGOSHIN, M.G.*

RABINOVICH, Sergey Ivanovich; IGOSHIN, M.G., red.; ANDRIANOV, B.I., tekhn.red.

[The torpedo] Torpeda. Moskva, Izd-vo DOSAAF, 1957. 101 p.  
(MIRA 10:12)

(Torpedoes)



*Igoshin M. G.*  
KRIVONOSOV, L.; IGOSHIN, M., red.; ANDRIANOV, B., tekhn.red.

[Changing the scale of theoretical drawings and general type drawing of ship models; office of the Central laboratory of ship modeling of the All-Union Voluntary Society for the Promotion of the Army, Air Force and Navy] Ob izmenenii masshtaba teoreticheskogo chertezha i chertezha obshchego vida modeli korablia; konsul'tatsiia Tsentral'noi laboratorii morskogo modelizma DOSAAF SSSR. Moskva, Izd-vo DOSAAF, 1957.  
10 p. (MIRA 11:1)

(Ship models)

*IGOSHIN, M. G.*

YEMEL'YANOV, Yu.; DZYAKHVIKH, V.; IGOSHIN, M.G., red.; BLAZHENKOVA, G.I.,  
tekhn.red.

[Cutters with automobile motors] Kater s avtomobil'nym motorom.  
Moskva, Izd-vo DOSAAF, 1957. 136 p. (MIRA 11:2)  
(Motorboats)

*Igoshin, M.G.*

KLOSS, Emil' Emil'yevich; IGOSHIN, M.G., red.; KARYAKINA, M.S., tekhn.red.

[The "Mir" motorboat] Motornaya lodka "Mir." Moskva, Isd-vo  
DORAAF, 1957. 30 p. (MIRA 11:4)  
(Motorboats)

MAKSIMENKO, Vasilii Pavlovich. Prinimali uchastiye: KAMENSKIY, V.K.;  
SUROVIKIN, V.D., vrach-fiziolog; SHKFTAL', M.A., vrach; ZAONEGIN,  
V.M., vodolaznyy spetsialist; KUZNETSOV, I.I., vodolaznyy  
spetsialist; SHTORM, V.M., vodolaznyy spetsialist; IGOSHIN, M.G.,  
red.; KARYAKINA, M.S., tekhn.red.

[Manual for divers engaged in rescue work] Posobie dlia vodolaza-  
spasatel'ia. Moskva, Izd-vo DOSAAF, 1957. 158 p. (MIRA 13:8)  
(Diving, Submarine)

IGOSHIN, M.G.

PECHATIN, A.A., inzh.; BEN'KO, M.P.; KAMENSKIY, V.K.; KARTASHEV, R.D.;  
SUTIRIN, M.A.; FADYEV, V.G., red.; IGOSHIN, M.G., red.; KARYAKINA,  
M.S., tekhn.red.

[Manual for helmsmen for lifesaving cutters] Posobie motoristu-  
rulevomu spasatel'nogo katera. Moskva, 1957. 188 p. (MIRA 11:5)

1. Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii,  
aviatsii i flotu.  
(Navigation) (Motorboats)

KURDENKOV, Kirill Mikiforovich; IGOSHIN, M.G., red.; TSIGEL'MAN, P.T., tekhn.  
red.

[Painting ship models] Okraska morskikh modelei. Konsul'tatsiia  
TSentral'noi laboratorii morskogo modelizma DOSAAF SSSR, Moskva.  
Izd-vo DOSAAF, 1957. 38 p. (MIRA 11:8)  
(Ship models--Painting)

*igoshin, M. G.*  
FADEYEV, Vladimir Georgiyevich, PECHATIN, Aleksandr Aleksandrovich, SUROVIKIN,  
Vladislav Dmitriyevich, IGOSHIN, M.G., red.; ANDRIANOV, B.I., tekhn.red.;

[Underwater man; arrangement and use of the "Podvodnik-1" diving apparatus] Chelovek pod vodoi; ustroistvo i ispol'zovanie vodolaznogo apparata "Podvodnik-1". Moskva, Izd-vo DOSAAF, 1958. 149 p. (MIRA 11:9)  
(Diving, Submarine)

YUVNAL'YEV, Igor' Nikolayevich; IGOSHIN, M.G., red.; FAYNSHMIDT,  
F.Ya., tekhn.red.

[Hydroglider with air propeller] Aeroglisser. Moskva, Izd-vo  
DOSAAF, 1959. 36 p. (MIRA 12:9)  
(Hydroplanes)



MIKHAYLOV, Petr Yevgen'yevich; IGOSHIN, M.G., red.; KOBZAR', V.N.,  
tekhn.red.

[Submarine model with a mechanical engine] Model' podvodnoi  
lodki s mekhanicheskim dvigatelem. Moskva, Izd-vo DOSAAF, 1959.  
78 p. (MIRA 12:12)

(Submarine boats--Models)

BRAGIN, Veniamin Petrovich; IGOSHIN, M.G., red.; BLAZHENKOVA, G.I.,  
tekhn.red.

[Young sailor of the All-Union Volunteer Society for Assistance  
to the Army, Air Force, and Navy] IUnyi moriak DOSAAF. Moskva,  
Izd-vo DOSAAF, 1959. 109 p. (MIRA 12:12)  
(Naval education)

AGATOV, Aleksandr Andreyevich; IGOSHIN, M.G., red.; GOLDOVSKIY, S.Ye.,  
red.; BLAZHENKOVA, O.I., ~~VERKH~~, red.

[Outboard motors] Podvesnye motory. Moskva, Izd-vo DOSAAF,  
1959. 190 p. (MIRA 13:2)  
(Outboard motors)

KARTASHEV, Rostislav Dmitriyevich; IGOSHIN, M.G., red.; KAZANKOV, A.A.,  
red.; KARYAKINA, M.S., tekhn.red.

[Naval manual] Posobie po voenno-morskoy delu. Izd.2., perer.  
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